

CLAIMS

What is claimed is:

1. A healthcare system for a care-giving facility, comprising:

a medical device;

5 a user interface;

a first central computer having a first database and a first functional feature set associated with the data and functions related to the medical device and the user interface, wherein the medical device and user interface communicate directly with first central computer;

10 a second central computer having a second database and a second functional feature set, wherein the first central computer is securely connected to the second computer, wherein the medical device and the user interface do not communicate directly with the second central computer; and wherein the user interface can receive data from the second database relating to the second functional feature set of the second central computer through the first central computer.

15 2. The healthcare system of claim 1, wherein the first functional feature set comprises at least one of a volumetric infusion pump feature, and a syringe pump feature.

3. The healthcare system of claim 1, wherein the first functional feature set comprises at least one of a change pump channel feature, an administer infusion feature, a stop or discontinue infusion feature, a resume infusion feature, and a remove pump feature.

20 4. The healthcare system of claim 1, wherein the second functional feature set comprises at least one of a patient management feature, an item management feature, a facility management feature, a messaging feature, an alarms/alerts feature, a billing interface feature, a formulary interface feature, a lab results interface feature, an inventory tracking feature, a clinician administration feature, an order entry feature, a pharmacy feature, a user interface feature, a user interface and clinician association feature, a volumetric infusion pump feature, and a syringe pump feature.

25 5. The healthcare system of claim 1, wherein the first database comprises at least one of pump data, pump channel data, pump sub-channel data, order data, clinician data, patient data, user interface data, medical device data, hub data, titration data, comparison data, alarm data, escalation data, hub alarm data, pump alarm data, channel alarm data, and alarm history data.

30 6. The healthcare system of claim 1, wherein the second database comprises at least one of patient management data, item management data, facility management data, messaging data,

alarms/alerts data, inventory tracking data, a clinician administration data, order entry data, user interface and clinician association data.

7. The healthcare system of claim 1 wherein the first central computer is operably connected to the second computer through at least one of a dedicated TCP/IP hard-wired connection, a high speed, low latency virtual private network, and a public or shared infrastructure utilizing encryption through a fiber optic connection, a microwave connection, or a high speed wireless connection.

8. The healthcare system of claim 1, wherein the second central computer sends data from the second database to the first central computer in a first standard protocol, and the first central computer sends the data to the user interface in a second standard protocol.

9. The healthcare system of claim 1, wherein the second central computer sends second data from the second database to the first central computer, wherein the first central computer combines the second data with first data from the first database with the second data, and wherein the first central computer sends the combined first and second data to the user interface for display on a display of the user interface.

10. The healthcare system of claim 1 further comprising:

a plurality of wireless access points through which the medical device and the user interface communicate with the first central computer.

11. The healthcare system of claim 1, wherein the first central computer receives second data from the second database in the second central computer for use in a validation procedure.

12. The healthcare system of claim 11, wherein the validation procedure comprises the steps of receiving an XML document and determining whether the data expected to be received from the XML document is received.

13. The healthcare system of claim 1, wherein the first central computer receives data from at least one of the user interface and the medical device, and determines whether the received data is valid in order to enable the first central computer to perform a further step.

14. The healthcare system of claim 1, wherein the first central computer sends operation data from at least one of the first database and the second database to the medical device for use in the operation of the medical device.

15. A method for operating a healthcare system in a care-giving facility having a medical device, a user interface, a first central computer securely connected to a second central computer having a second database, the method comprising the steps of:

providing for receiving medical data directly from a medical device;
providing for receiving user data directly from the user interface;
providing for receiving second data from the second database in the second central
computer and from the secure connection;
5 providing for retrieving first data from a first database in the first central computer; and,
providing for utilizing a first functional feature set to process at least one of the first data
and the second data.

16. The method of claim 15, wherein the medical device and the user interface do not
communicate directly with the second central computer.

10 17. The method of claim 15 further comprising the step of providing for sending the
second data to the user interface from the first central computer.

18. A healthcare system for a care-giving facility, comprising:
a medical device;
a user interface;

15 a central validation computer having a validation database and a first functional feature
set associated with the data and functions related to the medical device and the user interface,
wherein the medical device and user interface communicate directly and securely with the
central validation computer;

20 a second central computer having a second database and a second functional feature set,
wherein the user interface can receive data from the second database relating to the second
functional feature set of the second central computer through the central validation computer.

19. The healthcare system of claim 18, wherein the central validation computer is
securely connected to the second computer.

25 20. The healthcare system of claim 18, wherein the medical device and the user
interface do not communicate directly with the second central computer.

21. The healthcare system of claim 18, wherein the central validation computer receives
second data from the second database in the second central computer for use in a validation
procedure performed by the central validation computer.

30 22. There healthcare system of claim 21, wherein the validation procedure comprises
the steps of receiving an XML document and determining whether the data expected to be
received from the XML document is received.

23. There healthcare system of claim 21, wherein central validation computer receives

first data from at least one of the user interface and the medical device, and wherein the validation procedure comprises the step of determining whether the first data matches the second data.

24. A healthcare system for a care-giving facility, comprising:

5 a medical device;

a user interface;

a central validation portion of a central computer having a validation portion of a database and a first functional feature set associated with the data and functions related to the medical device and the user interface, wherein the medical device and user interface
10 communicate directly and securely with the central validation portion of the central computer;

a second non-validation portion of the central computer having a second non-validation portion of the database and a second functional feature set, wherein the user interface can receive data from the second non-validation portion of the database relating to the second functional feature set of the second non-validation portion of the central computer through the
15 central validation portion of the central computer.

25. The healthcare system of claim 24, wherein the central validated portion of the central computer operates in a first environment running a first operating system, and the second non-validation portion of the central computer operates in a second environment running a second operating system.

20 26. The healthcare system of claim 25, wherein the first and second operating systems are separated by a fire wall.

27. The healthcare system of claim 24, wherein the central computer is a single server.

28. The healthcare system of claim 24, wherein the central computer comprises a first server and a second separate server, the first and second servers being separated by a fire wall,
25 wherein the central validation portion of the central computer resides in the first server, and wherein the second non-validation portion of the central computer resides on the second server.